

IN THE CLAIMS:

This listing of claims replaces all prior listings:

1.-2. (Cancelled).

3. (Currently Amended) An AlGaAs-based ridge-stripe semiconductor laser element having a stacked structure formed on a GaAs substrate, said stacked structure comprising:

an $\text{Al}_y\text{Ga}_{1-y}\text{As}$ ($0 < y < 1$) cladding layer having a same conductivity type as said substrate, an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) cladding layer having a same conductivity type as said substrate;

a non-doped active layer section having; an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) first cladding layer having a conductivity type opposite to said substrate; and an $\text{Al}_z\text{Ga}_{1-z}\text{As}$ ($0 < z \leq 1$) etching stop layer;

an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) second cladding layer having a conductivity type opposite to said substrate;

an $\text{Al}_y\text{Ga}_{1-y}\text{As}$ ($0 < y < 1$) third cladding layer having a conductivity type opposite to said substrate; and

a GaAs contact layer having a conductivity type opposite to said substrate;

wherein

said second cladding layer, said third cladding layer and said contact layer are formed as a stripe-patterned ridge; and

an Al compositional ratio “z” of said etching stop layer, an Al compositional ratio “x” of said first cladding layer and said second cladding layer, and an Al compositional ratio “y” of said third cladding layer satisfy the relations $x < z$ and $x < y$, where a difference between “x” and “z” is set to 0.025 or more.

4. (Original) The semiconductor laser element as claimed in Claim 3, wherein said etching stop layer has a thickness between 0.015 μm and 0.02 μm .

5.-7. (Cancelled).

8. (New) An AlGaAs-based ridge-stripe semiconductor laser element having a stacked structure formed on a GaAs substrate, said stacked structure comprising:

an $\text{Al}_y\text{Ga}_{1-y}\text{As}$ ($0 < y < 1$) cladding layer having a same conductivity type as said substrate, an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) cladding layer having a same conductivity type as said substrate;

an active layer section having an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) first cladding layer having a conductivity type opposite to said substrate and an $\text{Al}_z\text{Ga}_{1-z}\text{As}$ ($0 < z \leq 1$) etching stop layer;

an $\text{Al}_x\text{Ga}_{1-x}\text{As}$ ($0 < x < 1$) second cladding layer having a conductivity type opposite to said substrate;

an $\text{Al}_y\text{Ga}_{1-y}\text{As}$ ($0 < y < 1$) third cladding layer having a conductivity type opposite to said substrate; and

a GaAs contact layer having a conductivity type opposite to said substrate,

wherein,

said second cladding layer, said third cladding layer and said contact layer are formed as a stripe-patterned ridge, and

an Al compositional ratio “z” of said etching stop layer, an Al compositional ratio “x” of said first cladding layer and said second cladding layer, and an Al compositional ratio “y” of said third cladding layer satisfy the relations $x < z$ and $x < y$, where a difference between “x” and “z” is set to 0.025 or more.

9. (New) The semiconductor laser element as claimed in Claim 8, wherein said etching stop layer has a thickness between 0.015 μm and 0.02 μm